

WHAT IS CLAIMED IS:

1. A method for providing a virtual replenishing of a supply item with an imaging substance, comprising the steps of:

providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance;

communicating to a database a first serial number associated with said first supply item;

comparing said first serial number with a plurality of serial numbers stored in said database;

receiving from said database one of a first data indicating non-correspondence between said first serial number with one of said plurality of serial numbers and a second data indicating correspondence between said first serial number with one of said plurality of serial numbers, wherein said second data includes a verification key; and

comparing said verification key received from said database with a first key stored in a memory associated with said first supply item,

wherein if said verification key received from said database corresponds to said first key stored in said memory associated with said first supply item, then performing the step of allocating at least a portion of said surplus amount of said imaging substance contained in said first supply item for use.

2. The method of claim 1, wherein said method is performed when said licensed amount of said imaging substance has fallen below a predetermined threshold.

3. The method of claim 1, wherein the step of comparing said verification key received from said database with said first key stored in said memory associated with said first supply item is performed by a module attached to said supply item.

4. The method of claim 1, wherein the step of comparing said verification key received from said database with said first key stored in said memory associated with said first supply item is performed by a controller of an imaging device.

5. The method of claim 1, wherein the step of comparing said verification key received from said database with said first key stored in said memory associated with said first supply item is performed by the steps of:

5 sending from a controller of an imaging device a first portion of said verification key to a module attached to said first supply item;

said module comparing said first portion of said verification key to a corresponding portion of said first key stored in said memory associated with said first supply item, and upon verification of said first portion,

10 said module supplying to said controller a remaining portion of said first key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

6. The method of claim 1, wherein if said verification key received from said database does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to resubmit said first serial number.

7. The method of claim 6, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

8. The method of claim 1, wherein if said verification key received from said database does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to enter a corrected key.

9. The method of claim 8, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

10. The method of claim 1, wherein the step of comparing said verification key is repeated a predetermined number of times.

11. The method of claim 10, wherein if there is no correspondence between said verification key and said first key in said predetermined number of times, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

12. The method of claim 1, wherein said memory is attached to said supply item.

13. A method for providing a virtual replenishing of a supply item with an imaging substance, comprising the steps of:

providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance;

communicating to a mechanism a first serial number associated with said first supply item;

generating a verification key based on said first serial number;

comparing said verification key received from said mechanism with a first key stored in a memory associated with said first supply item,

wherein if said verification key received from said mechanism corresponds to said first key stored in said memory associated with said first supply item, then performing the step of allocating at least a portion of said surplus amount of said imaging substance contained in said first supply item for use.

14. The method of claim 13, wherein said method is performed when said licensed amount of said imaging substance has fallen below a predetermined threshold.

15. The method of claim 13, wherein the step of comparing said verification key received from said mechanism with said first key stored in said memory

associated with said first supply item is performed by a module attached to said supply item.

16. The method of claim 13, wherein the step of comparing said verification key received from said mechanism with said first key stored in said memory associated with said first supply item is performed by a controller of an imaging device.

17. The method of claim 13, wherein the step of comparing said verification key received from said mechanism with said first key stored in said memory associated with said first supply item is performed by the steps of:

5 sending from a controller of an imaging device a first portion of said verification key to a module attached to said first supply item;

said module comparing said first portion of said verification key to a corresponding portion of said first key stored in said memory associated with said first supply item, and upon verification of said first portion,

10 said module supplying to said controller a remaining portion of said first key stored in said memory for comparison by said controller to a corresponding portion of said verification key.

18. The method of claim 13, wherein if said verification key received from said mechanism does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to resubmit said first serial number.

19. The method of claim 18, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

20. The method of claim 13, wherein if said verification key received from said mechanism does not correspond to said first key stored in said memory associated with said first supply item, then performing the step of prompting at least one of a user and a monitoring mechanism to enter a corrected key.

21. The method of claim 20, wherein if there is no correspondence between said verification key and said first key in a predetermined number of attempts, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

22. The method of claim 13, wherein the step of comparing said verification key is repeated a predetermined number of times.

23. The method of claim 22, wherein if there is no correspondence between said verification key and said first key in said predetermined number of times, then performing the step of displaying a message indicating that said virtual replenishing of said supply item with said imaging substance cannot be performed.

24. The method of claim 13, wherein said memory is attached to said supply item.

25. The method of claim 13, wherein said first key is generated based on said first serial number by said mechanism executing an algorithm.

26. The method of claim 25, wherein said algorithm is an HMAC algorithm.

27. The method of claim 13, wherein the step of generating said verification key based on said first serial number is performed by said mechanism executing an algorithm.

28. The method of claim 27, wherein said algorithm is an HMAC algorithm.

29. A method for providing imaging substance for use in an imaging device, comprising the steps:

- providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance
- 5 and a surplus amount of said imaging substance;
- associating a memory with said first supply item;
- providing a database located remote from said memory for storing a plurality of serial numbers and a plurality of keys for a plurality of supply items;
- generating a first serial number for said first supply item;
- 10 generating a first key associated with said first serial number;
- storing at least said first key in said memory associated with said first supply item;
- storing said first serial number in said database;
- storing said first key in said database as a verification key;
- 15 installing said first supply item in said imaging device for use in imaging; and
- providing a virtual replenishing of said supply item with said imaging substance by the steps of:
 - communicating to said database said first serial number;
 - comparing said first serial number with said plurality of serial numbers stored
 - 20 in said database;
 - receiving from said database one of a first data indicating non-correspondence between said first serial number with one of said plurality of serial numbers and a second data indicating correspondence between said first serial number with one of said plurality of serial numbers, wherein said second data includes said verification
 - 25 key; and
 - comparing said verification key received from said database with said first key stored in said memory of said first supply item,
 - wherein if said verification key received from said database corresponds to said first key stored in said memory associated with said first supply item, then
 - 30 performing the step of allocating at least a portion of said surplus amount of said imaging substance contained in said first supply item for use.

30. A method for providing imaging substance for use in an imaging device, comprising the steps:

- 5 providing a first supply item containing an actual supply of said imaging substance, said actual supply including a licensed amount of said imaging substance and a surplus amount of said imaging substance;
- providing a memory that is associated with said first supply item;
- providing a mechanism located remote from said memory for associating a plurality of serial numbers with a respective plurality of keys for a plurality of supply items;
- 10 generating a first serial number for said first supply item;
- generating a first key based on said first serial number;
- storing at least said first key in said memory associated with said first supply item;
- installing said first supply item in said imaging device for use in imaging; and
- 15 providing a virtual replenishing of said supply item with said imaging substance by the steps of:
 - communicating to said mechanism said first serial number;
 - generating a verification key based on said first serial number;
 - comparing said verification key received from said mechanism with said first
 - 20 key stored in said memory of said first supply item,
- wherein if said verification key received from said mechanism corresponds to said first key stored in said memory associated with said first supply item, then performing the step of allocating at least a portion of said surplus amount of said imaging substance contained in said first supply item for use.